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ABSTRACT

This study defined teacher attitude factors using an instrument made up of attitude items which had been found to have high factor loading in four other studies, investigated the similarity of these factors to factors defined in other studies, and assessed the effects of the male-female and teacher-undergraduate dichotomies on the stability of these factors. Subjects were students in three required course sections of the Department of Secondary Education at Ohio University and the teaching staff of public secondary schools in 21 counties of southeastern Ohio. Instruments used in the study included the degree of agreement of 100 items by 451 Ohio University participants and the results of the MTAI (Minnesota Teacher Attitude Inventory), a study by Yee of 368 intermediate grade teachers. The major value of the study of teacher attitudes is the contribution this knowledge can make in the prediction of teaching success. Longitudinal studies are recommended. A 17-item bibliography and appendixes of inventory item sources, varimax factor loadings, and items written at Ohio University are included. (MJM)

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A STUDY OF ATTITUDE FACTORS FOR SECONDARY SCHOOL TEACHERS AND TEACHER EDUCATION STUDENTS

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INTRODUCTION

The Minnesota Teacher Attitude Inventory (MTAI) was designed to measure a single teacher attribute,". . . those attitudes of a teacher which predict how well he will get along with students in interpersonal relationships. . ." (Cook, Leeds and Callis, 1951, p.3). Horn and Morrison (1965) questioned the assumption that the 150 items which make up this instrument measure a single trait. They factor analyzed the responses to the MTAI of 306 teacher education students and found five easily interpreted factors. Because of computer limitations, Horn and Morrison employed a factor analysis procedure involving "parcels" or subsets of the items on the MTAI. The centroid procedure was used and the centroid factors were rotated by the Varimax procedure.

Kerlinger (1967) has been engaged in the study of teacher attitudes for over fifteen years. A principal emphasis of his work has been the investigation of "progressive" and "traditionalistic" attitudes toward education. Rather than emphasizing the relationship between teacher attitudes and teacher behavior, his research has helped him develop a theory of social attitudes, which include educational attitudes. Education Scale VI consists of 23 progressive and 23 traditionalistic items. The responses of 344 New York University graduate students of education and New York teachers to ES VI were factor analyzed by the principal axes method. Iterated approximations to the communalities were used. The Promax method of rotation was used to obtain eight oblique factors.

Wehling and Charters (1969) studied what they called teacher beliefs, using items which had a more cognitive emphasis than the items on the MTAI.

They indicated, however, that Wehling shared items with Holemon, who was studying teacher attitudes, and that Holemon had borrowed some of his items from the MTAI and from one of Kerlinger's attitude instruments. Because of the apparent overlap between the concepts of beliefs and attitudes, the items from the Wehling and Charters revised their questionnaire several times during the course of their study. They reported the results of the factor analysis of a 118-item instrument which was administered to 291 midwestern private college teachers and experienced public school professional personnel. Wehling and Charters, as did Horn and Morrison, had to contend with the problem of computer limitations, and because of this problem, factor analyses were limited to correlation matrices no larger than 100 x 100. The correlation matrix was factor analyzed by the principal axis technique. In his dissertation, Wehling (1964) reported six Varimax factors which he considered stable, and Wehling and Charters reported eight Varimax factors in their later article.

Yee and Fruchter (1971) factor analyzed responses to the MTAI in an attempt to clarify and expand the work of Horn and Morrison. Since they had access to a larger computer than did Horn and Morrison, Yee and Fruchter were not forced to use compromise computational techniques. Horn and Morrison used teacher education students as their subjects, while Yee and Fruchter used a sample composed of 368 intermediate grade teachers. A principal components solution was used and Varimax rotations were performed on from eight to four factors. A solution involving five factors was selected as most appropriate and rotational adjustments were made to pairs of the Varimax factors.

Yee and Fruchter suggested that the influence of population variations on teacher attitude factors could be investigated and that the

content of the MTAI could be expanded to discover additional teacher attitude dimensions. Both of these suggested activities were included in the present study.

THE PROBLEM

The purpose of this study was to define teacher attitude factors using an instrument made up primarily of attitude items which had been found to have high factor loadings in four other studies, to investigate the similarity of these factors to factors defined in the other studies, and to assess the effects of the male-female and teacher-undergraduate dichotomies on the stability of these factors.

PROCEDURAL CONSIDERATIONS

Because it is believed that attitudes which are appropriate for success at the elementary level may be inappropriate for success at the secondary level, this study was restricted to secondary teachers and undergraduates enrolled in courses in secondary education. The mean scores of elementary and secondary teachers on the MTAI have been found to differ (Cook and others, 1956), suggesting a possible influence on the result of a factor analysis. None of the studies which were discussed earlier in this paper reported such an orientation.

Although it has been suggested that the attitudes of experienced teachers are more stable than those of undergraduates (Yee and Fruchter, 1971), an underlying premise for the design of this study was that the maximum use of a teacher attitude instrument would come at the undergraduate level, since it could be used for predictive purposes. The factors related to the items on such a teacher attitude instrument should exist for both

undergraduate teacher education students and for experienced teachers if the instrument is to be used for predictive purposes.

Another consideration related to the design of the study was whether the same factors exist for females and males. This type of factor identity is not as critical as the teacher-undergraduate factor identity, but it is of importance since the construction of separate male and female attitude instruments is unnecessary if no differences in the factors exist.

This study is reported in greater detail in the first author's doctoral dissertation (McClure, 1971).

DATA COLLECTION PROCEDURES

Selection of Subjects

The sampling units which provided subjects for this study were sections of three required courses offered by the Department of Secondary Education of Ohio University and the teaching staffs of public secondary schools in 21 counties in the southeastern area of Ohio.

The Instruments Used

The first instrument used in this study was composed of 100 items which could be answered by one of five responses ranging from "strongly agree" to "strongly disagree." Items used on this instrument included items which had the highest loadings in the Horn and Morrison, Kerlinger and Wehling and Charters studies discussed earlier. Items written by students in a pre-doctoral seminar in secondary education at Ohio University were also used. One hundred sixteen undergraduates and 57 teachers completed this first questionnaire.

After the first instrument had been designed, the results of the Yee and Fruchter study of the MTAI became available. Sixty-nine items which had

high factor loadings in a factor analysis of the first instrument were used along with eleven items from the Yee and Fruchter study to make up a second instrument. Fifty-eight teachers and 130 undergraduates completed the second instrument. The responses to this instrument were factor analyzed, and a final 75-item instrument was constructed. One hundred sixty-eight teachers and 283 undergraduates completed this instrument. The sources of the items on this instrument are shown in Appendix A.

DATA ANALYSIS PROCEDURES

The responses to the final form of the inventory of 451 subjects (486 subjects participated in the study, but 35 did not answer all 75 items on the inventory) were factor analyzed. A response of "strongly agree" was given a value of 5, a response of "agree" was given a value of 4, a response of "undecided" was given a value of 3, a response of "disagree" was given a value of 2, and a response of "strongly disagree" was given a value of 1. A modification of the BMD03M computer program (Dixon, 1967, pp. 169-180) was used for the factor analyses. This program performs a principal axes analysis and a Varimax rotation. Unities were used as diagonal elements.

The choice of the number of rotated factors to be interpreted is dependent on the judgment of the factor analyst. Horn (1965) has discussed this problem, as have Thompson (1962) and Rummel (1970). Three criteria were used for determining the most appropriate number of rotated factors. These criteria were parsimony (the reduction of the set of variables to a minimum number of underlying variables or factors with a minimum loss of information), factorial invariance (the reproducibility of the factors from sample to sample), and interpretability (the meaningfulness of the item groupings which are a result of factor analysis).

Parsimony

Parsimony was assessed by rotating from five through twelve factors and comparing each solution between six and twelve factors with the solution having one less factor. The coefficient of congruence (Harman, 1967, p. 270) and program RELATE (Veldman, 1967) were used to assess the similarity of the solutions. The coefficient of congruence measures the pattern and the magnitude of the factor loadings and yields values from +1.00 through zero to -1.00 (Rummel, 1970, p. 461).

Kerlinger (1966) stated that there is no clear standard for interpreting the meaning of the coefficient of congruence, but on the basis of previous experience with this coefficient he classified values of 0.90 or greater as high; values from 0.80 to 0.89 as good; 0.70 to 0.79 as fair; and values lower than 0.70 as low (p.166). Veldman's program RELATE computes the cosines of the angles between all pairs of factor axes in two factor structures. He stated that ". . .these cosines may be interpreted as correlations between the factor variables derived from the two analyses" (p.237). Veldman does not provide guidelines for interpreting the magnitude of the values of such a cosine, but if these values can be regarded as correlation coefficients, it is possible to square the value of the cosine and obtain a measure of the common variance of the two factors.

Factorial Invariance

A computer program was written to remove the influence of the male-female composition of the sample and the teacher-undergraduate effect. In each of these computations a value of 1 was assigned to one condition and a value of 2 was assigned to the other. Partial correlations of the 75 items on the inventory were computed with the two variables mentioned above held constant.

Nunnally suggested removing the influences of such variables from a correlation matrix prior to factor analysis (1967, p. 370). This matrix of partial correlations was factor analyzed with the use of the BMD03M program, and the rotated matrices of from five through twelve factors from the factor analysis of the unaltered correlation matrix were compared to the rotated matrices having the same number of factors which were obtained from the factor analysis of the partial correlation matrix. The coefficient of congruence and program RELATE were used for the comparisons.

Interpretability

Interpretability was assessed by ordering the items in terms of their loadings on a given factor and attempting to discern the meaning of the factor. The similarity of each factor to the factors found in the other studies mentioned in the introduction was also considered.

PRESENTATION AND ANALYSIS OF THE DATA

Parsimony

When each rotated solution was compared to the rotated solutions having one factor more and one factor less, the maximum similarity was found between the ten- and eleven-factor solutions. The lowest coefficient of congruence between any of the factors of the ten-factor solution and the most similar factor of the eleven-factor solution was .93.

Factorial Invariance

The rotated solutions from an unaltered correlation matrix of the 75 inventory items were compared to the solutions with an equal number of rotated factors for a correlation matrix from which the effects of the male-female and the teacher-undergraduate variables had been removed by computing

partial correlations. The most similar solutions were the nine-factor and the ten-factor pairs. The lowest coefficient of congruence for the ten-factor solutions was -.77, and the nine-factor solutions also had a low coefficient of -.77. Only one value in each case was below an absolute value of .90. When program RELATE was used for comparison purposes, the lowest cosine for the comparison of the ten-factor solutions was -.82, and the lowest cosine for the comparison of the nine-factor solutions was -.88. Two cosines of comparable factors were below an absolute value of .90 in each case.

Interpretability

After analyzing the data from the two comparisons discussed above, it was not clear whether the ten-factor solution or the nine-factor solution was more appropriate. To determine the interpretability of the factors for each solution, the inventory items were ordered in terms of their loadings on a given factor, and an attempt was made to determine the meaning of the underlying factor (the reason for the statistical similarity of the items). The ten-factor solution was chosen as the more interpretable of the two. The sources of the inventory items are given in Appendix A and their loadings on each of the ten factors are given in Appendix B. Items with loadings of greater than an absolute value of 0.30 on a given factor are shown.

The first factor is related to items concerning the control of children by adults. Items with positive loadings on this factor favor strict control, while items with negative loadings advocate giving more freedom to children. This factor is quite similar to both Horn and Morrison's Factor I (Traditionalistic versus Modern Beliefs about Child Control) and Yee and Fruchter's Factor I (Children's Irresponsible Tendencies and Lack of Self-Discipline), with the six items from those factors which appear on the instrument having

their highest loadings on Factor I in this study. The three items from Kerlinger's Factor I (Criticism of the Schools) which appear on the instrument used in this study have their highest loadings on this factor. Four of the six items which came from Kerlinger's Factor VI (Educational Conservatism) have loadings above 0.30 on Factor I. Kerlinger used oblique rotation in his study, and some differences in the factors in his study and the orthogonal factors in this study, the Horn and Morrison study, the Yee and Fruchter study, and the Wehling and Charters study are to be expected. Two items having positive loadings and two items having negative loadings on Wehling and Charters' Student Autonomy versus Teacher Direction factor appeared on Factor I. Two items which were on Horn and Morrison's Factor V (Laissez-Faire versus Controlling Attitude toward Children) and Yee and Fruchter's Factor IV (Pupils' Independence in Learning) had negative loadings on Factor I in this study. In both of those studies a scoring procedure was used which gave the highest weight to a pro-democratic response to an item, while in the present study a response of "strongly agree" was always given the highest value. Factor I is so similar to Horn and Morrison's Factor I, and since the name of their factor, Traditionalistic versus Modern Beliefs about Child Control, is appropriate to describe Factor I in this study, this name will be used.

The second factor is related to items which express agreement with "Non-Subject-Matter Emphasis" in the school program. Problem-solving and affective considerations are expressed by items with high loadings on this factor. No items had loadings under -0.30 on this factor. No MTAI items had loadings over 0.30, and, therefore, this factor would not have appeared in studies of the MTAI. All three of the items from Kerlinger's Factor IV (Life Adjustment) have loadings of about 0.30 on this factor. Both of the items from Wehling and Charters' Personal Adjustment Ideology factor which appear

on the instrument have loadings above 0.30. The Personal Adjustment Ideology factor and the Life Adjustment factor could both be the same factor as Factor II in this study.

While Factor II was a factor which represented attitudes toward non-subject-matter aspects of the school program, the third factor is primarily related to items concerning the importance of "Subject-Matter Emphasis" in the program of the school. Kerlinger's Factor V -- Learning as Storing Knowledge -- and Wehling and Charters' Subject-Matter Emphasis factor are represented here. Only one MTAI item had a loading on this factor which was above 0.30, and this loading was only slightly above that level. As in the case of Factor II, this factor is not highly related to those found in the studies of the MTAI. Judging from the items which loaded highly on Kerlinger's Learning as Storing Knowledge factor, Wehling and Charters' Subject-Matter Emphasis factor, and Factor III in this study, these factors could all be the same.

Factor IV is related to items expressing attitudes about "Degrading the Student." Two of the six items on the inventory which came from Horn and Morrison's Factor III (Punitive Intolerance versus Permissive Tolerance for Child Misbehavior) had loadings above 0.30 on this factor. The one item on the inventory from Wehling and Charters' Consideration of Student Viewpoint factor also had a loading above 0.30 on Factor IV.

Items with positive loadings on Factor V express disapproval of pupils. The items which had negative loadings express approval of pupils. None of the items having loadings above an absolute value of 0.30 came from the Kerlinger or the Wehling and Charters instruments, and this factor would not have been found in these studies. Three of the five items on the instrument which came from Horn and Morrison's Factor II entitled "Unfavorable versus

Favorable Opinions about Children" have loadings of above 0.30 on this factor. Three of the four items on the instrument which are from Yee and Fruchter's Factor V (Pupils' Acquiescence to the Teacher) had loadings of above an absolute value of 0.30 on Factor V in this study. Two of these items had negative loadings, and one had a positive loading. The items on this factor all fit the description which Horn and Morrison used to describe their Factor II, and Factor V in this study will be called by the same name: "Unfavorable versus Favorable Opinions about Children."

Factor VI shows no obvious similarity to any of the factors found in the studies reported earlier, and the underlying meaning of the factor is not evident. Six items which have high loadings on this factor were written at Ohio University, and there seems to be no logical similarity among these items. Rummel (1970) discussed the interpretability of factors and suggested that some factors might best be left uninterpreted. Kerlinger (1967) followed this practice in relation to his Factor VIII. Since labeling Factor VI might cause more confusion than clarification concerning the meaning of the factor, no interpretation will be offered.

Factor VII may be named "Disengagement versus Involvement of the Teacher." The teacher is seen as a person who should not become involved either in decision making or in working in close interpersonal relationships with students. Kerlinger's unnamed Factor VIII has both items represented, and both items from Wehling and Charters' Emotional Disengagement factor also appear. This factor is another one on which no MTAI items had loadings above 0.30.

As in the case of Factor VI, the interpretation of Factor VIII is somewhat difficult. Several items indicating favorable opinions of children have high positive loadings, while other items expressing a negative outlook

toward children also have high positive loadings. Three of the six items on the instrument which are from Horn and Morrison's Factor III (Punitive Intolerance versus Permissive Tolerance for Child Misbehavior), three of the six items on the instrument from Yee and Fruchter's Factor III (Rigidity and Severity in Handling Pupils), and two of the four items on the instrument from Yee and Fruchter's Factor V (Pupils' Acquiescence to the Teacher) have loadings of above 0.30 on this factor. Eight other factors from the studies of the MTAI, Kerlinger's ES VI, and Wehling and Charters' instrument are represented by one or two items. No label will be given to this factor.

The items having the highest loadings on Factor IX have negative correlations with the factor. The items having positive loadings suggest that the child should accept the word of authorities without question, while the items having negative loadings are concerned with an emphasis on the critical examination of life. These negatively loading items seem to be related to what is commonly termed "inquiry learning." Kerlinger's Factor II called "Experimentalism" could be the same factor, since the items having the four highest negative loadings came from this factor, and in earlier analyses the signs of the loadings were reversed. The name "Experimentalism" will be used for this factor.

Factor X can be called "School and Society." The three items on the instrument from Kerlinger's Factor III (Reconstructionism) have the highest loadings of any items. Other items with high loadings on this factor pertain to the affective domain. Kerlinger classified his Reconstructionism factor in the "progressivism" category, and Factor X seems to fit in that category also.

CONCLUSIONS AND IMPLICATIONS

Differences in the results of the factor analyses of two groups of respondents to the same instrument are a common occurence. The attitude structures of different individuals vary greatly. When the responses of two groups of subjects to two different instruments are compared, even greater discrepancies in the results of the studies can be expected. In view of this fact, it is noteworthy that Factors I, II, III, V, VII, IX and X defined in this study appear to be the same as factors found in other studies. The instrument used in this study was quite different in composition from those used in other studies of teacher attitude factors, and the apparent replication of factors from other studies serves to confirm their existence and stability.

As mentioned earlier in this paper, a major value of the study of teacher attitudes is in the contribution which this knowledge can make in the prediction of teaching success. It is possible to hypothesize about the relationships between teacher attitudes and teacher behavior. Several of the factors defined in this study seem to have promise in the prediction of teaching success, the relative promise of the factors depending on the criteria used for defining such success. Factor I (Traditionalistic versus Modern Beliefs about Child Control) is a construct which is probably closely related to how a teacher is perceived by students. A teacher scoring high on this factor would probably conduct his classes in an authoritarian manner and would be disliked by many students. A teacher scoring low on Factor I might be perceived as ineffective by administrators, as his classroom would be characterized by noise and lack of order.

Students of a teacher scoring high on Factor II (Non-Subject-Matter Emphasis) would probably achieve a high degree of success on tasks in the

affective domain and tasks requiring critical thinking and the integrati .. of knowledge. It is not expected that scores on this factor would be as closely related to student ratings as would scores on Factor I, but as non-subject matter behavioral objectives gain greater emphasis in the school program, Factor II should show increasing promise in the prediction of student achievement.

It has been found that ratings of teachers by students who preferred cognitive teacher merit over affective teacher merit did not correlate highly with the teachers' MTAI scores (Della Piana and Gage, 1955). Factor III (Subject-Matter Emphasis) is a factor which could be used to further explore this area. A teacher scoring high on Factor III would be quite concerned with the cognitive objectives of the school program. If attitudes do cause behavior, as has been assumed in this study, this type of teacher would stress subject matter in preference to interpersonal relationships, and the students in his class who feel that learning subject matter is the main reason that they go to school would be happy with this teacher and would give the teacher high ratings.

A teacher who scores high on Factor IV (Degrading the Student) would probably have very poor relationships with students and would be rated low by them. This lack of rapport between teacher and student would be apparent to the school principal and would affect his evaluation of the teacher. A teacher scoring high on Factor V (Unfavorable versus Favorable Opinions about Children) would not be expected to have good relationships with students, but for a different reason than the person scoring high on Factor IV.

Although the scores of teachers on Factor IX (Experimentalism) would not be expected to be as closely related to student ratings as would the

scores of teachers on several of the factors mentioned earlier, the teacher who favors this type of approach to learning could be expected to conduct his class in such a way that students would develop skills which are valuable in a democratic society. Techniques for the measurement of this type of learning are not adequate at this time. It is possible that a teacher who believes in this approach to learning would arouse negative reactions from the community. Students would question the rules which they are expected to obey and would question the actions of authority figures.

RECOMMENDATIONS

Since the ultimate objective of the study of teacher attitudes is the development of an instrument which will be a significant aid in the prediction of teacher success in the classroom, the recommendations made in this section deal with what are preceived to be the logical steps in achieving this goal.

1. A teacher attitude instrument composed of items which have high loadings on Factors I through V and/or on Factor IX should be developed. These factors seem to have promise in terms of their relationship to teacher success. It is likely that additional items will need to be constructed so that the common variance of the items on each factor will be increased and so that a better balance between the factors will be achieved. Items on such an instrument should be worded so that they are more directly concerned with secondary students. The words "child" and "children" which appeared in a number of items were not changed in this study, since maximum comparability with other studies was desired.

2. The relationships of various criteria of teaching success to scores on

each factor should be determined. The students involved in this determination should be classified into well-defined groups, since it is not likely that the same teacher attitude factor will be the most productive in predicting teaching success with all types of students.

3. Longitudinal studies should be done concerning the prediction of teaching success from scores made on each of the teacher attitude factors by undergraduates.

4. Prediction equations using the scores on the factors in conjunction with other data should be developed for various types of school situations. Different equations would probably be needed for predicting success in urban and rural schools, for example, although it may be possible to incorporate variables representing such differences in the school situation into one regression equation.

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APPENDIX A

INVENTORY ITEM SOURCES

ITEM NUMBER	SOURCE OF ITEM	ITEM NUMBER	SOURCE OF ITEM	ITEM NUMBER	SOURCE OF ITEM
1	MTAI #80[a]	26	KERL #32	51	WEHL #75
2	KERL #20[b]	27	KERL #42	52	KERL #16
3	MTAI #10	28	MTAI #107	53	MTAI #116
4	MTAI #110	29	OHIO #6	54	MTAI #126
5	MTAI #90	30	OHIO #7	55	OHIO #9
6	OHIO #1[c]	31	MTAI #88	56	OHIO #10
7	OHIO #2	32	KERL #3	57	KERL #7
8	MTAI #35	33	KERL #13	58	KERL #17
9	OHIO #3	34	KERL #23	59	KERL #37
10	MTAI #101	35	KERL #43	60	MTAI #47
11	KERL #4	36	MTAI #13	61	OHIO #11
12	WEHL #70[d]	37	MTAI #83	62	WEHL #57
13	KERL #12	38	MTAI #93	63	KERL #8
14	MTAI #72	39	MTAI #149	64	KERL #28
15	KERL #11	40	WEHL #13	65	KERL #38
16	KERL #31	41	KERL #34	66	KERL #19
17	KERL #41	42	MTAI #64	67	KERL #39
18	MTAI #113	43	MTAI #134	68	MTAI #19
19	MTAI #121	44	MTAI #94	69	MTAI #139
20	OHIO #4	45	OHIO #8	70	OHIO #12
21	OHIO #5	46	WEHL #4	71	OHIO #13
22	WEHL #1	47	WEHL #14	72	OHIO #14
23	WEHL #41	48	MTAI #15	73	WEHL #39
24	WEHL #51	49	MTAI #85	74	WEHL #49
25	MTAI #27	50	WEHL #15	75	WEHL #69

[a]Minnesota Teacher Attitude Inventory, Number 80

[b]Kerlinger's Education Scale VI, Number 20

[c]Items written at Ohio University, Number 1

[d]Wehling and Charters' attitude instrument, Number 70

APPENDIX B

VARIMAX FACTOR LOADINGS

FACTOR

ITEM NUMBER	I	II	III	IV	V	VI	VII	VIII	IX	X
1	.79									
2								.37		
3				.67						
4	.68									
5					-.36			.34		
6				.61						
7						-.43				
8	.76									
9	-.75									
10					-.40			.43		
11		.35				-.43				
12		.49								
13									-.38	
14			.31							
15		.57								
16			.67							
17	.40									
18					.67					
19						.31				
20			.32			.47				
21						.37				
22			.41							
23	.41							.53		
24							.51			
25	.44									
26							.67			
27	.43					.37				
28										
29							.49			
30			.50			.41				
31								.36		
32									-.33	.52
33									-.60	
34									-.65	
35	.57									
36	.46							.36	.33	
37						.33				
38	-.70									
39						.43				
40		.31								

APPENDIX B (continued)

ITEM NUMBER	FACTOR									
	I	II	III	IV	V	VI	VII	VIII	IX	X
41										.45
42										
43					.59					
44					.64					
45					.57					
46			.40						.32	
47		.32								.42
48	-.64									
49				.44				.41		
50		.52								
51		.39								
52										.51
53	.35				.34			.32		-.35
54	.76									
55	.61									
56						.53				
57										.52
58							-.61			
59								.43		
60	.44									
61	.45							.39		
62				-.70						
63		.59								
64			.64							
65	.41							.45		
66									-.58	
67	.59									
68	.67									
69						.33				
70	.49									
71						.37				
72	.44				.51					
73	.34							.45		
74							.34	.33		
75								.54		

APPENDIX C

ITEMS WRITTEN AT OHIO UNIVERSITY

1. It is ocasionally necessary to embarrass a student before the class.

2. Teachers profit from observing others teach.

3. Children should be given more freedom than they usually get.

4. Knowledge of subject matter is much more important than the personality of the teacher in promoting student achievement.

5. Students who come from low socio-economic backgrounds are probably beyond help by the time they reach high school.

6. Teachers must remember that they are public servants and must adhere to community standards regardless of their personal convictions.

7. Knowledge of subject matter is the most important aspect of successful teaching.

8. Most high school students lack a sense of responsibility.

9. Boys' hair should not fall below the shirt collar.

10. Individual conferences with students are a waste of time.

11. A student who uses profanity in the classroom should be severely disciplined.

12. A quiet classroom is essential to learning.

13. Administrators are not qualified to evaluate teacher performance.

14. Students today are very disrespectful.

JEM:sjg